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ABSTRACT

A study examined the attitudes of Florida business teachers toward perceived barriers to implementing the Florida competency-based business curriculum materials and also the characteristics of business teachers who would be most likely to receive and adopt curriculum innovations. During the study, a five-part questionnaire that contained questions concerning demography, perceived barriers, change orientation, innovativeness and flexibility, and attitudes toward competency-based education was administered to a random sample of full-time Florida business education teachers. The sample consisted of 151 secondary business teachers, 58 vocational and technical center business teachers, and 116 community college business teachers. The secondary business teachers saw the most barriers to implementing the curriculum. Those mentioned most frequently were lack of time and lack of clerical assistance. Included among demographic variables that were most predictive of the teacher's perception of barriers to implementing the curriculum were the type of school in which the teacher taught, the amount of inservice training received, and the amount of related work experience the teacher had. (The survey instrument is appended.) (MN)

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PERCEIVED BARRIERS TO IMPLEMENTING FLORIDA'S COMPETENCY-BASED BUSINESS EDUCATION CURRICULUM

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PERCEIVED BARRIERS TO IMPLEMENTING FLORIDA'S
COMPETENCY-BASED BUSINESS EDUCATION CURRICULUM

Acceptance of change and educational innovation has probably been one of education's most preplexing problems (Havelock, 1970). Although many studies and models of educational change have been conducted in the past 20 years, education is still criticized for the length of time required to obtain acceptance and adoption of innovations. Much of this time lag has been attributed to change resistance from many sources (Havelock, 1979).

Adoption of educational innovation has been found to be a multivariate phenomenon and adoption behavior often changes from innovation to innovation. Therefore, investigators have determined that change or adoption behavior could not be determined through a study of one element and probably not through several elements of the change process (Adamsky, 1972; Kester & Hull, 1974; Lippitt, Watson, & Westley, 1958). Forces of resistance to change have been found to be a characteristic of the specific innovation, the physical arrangement of the school setting, and the attitudes of teachers toward change (Lippitt, et al., 1958).

Characteristics (attributes) of the innovation have been investigated in many studies in order to determine the degree of adoption of the innovation. One of those attributes, relevance or knowledge of the innovation, has been determined to be one of the most important characteristics of the innovation in the adoption process. Lack of such knowledge might be an inhibiting factor in the adoption of innovations (Reynolds, 1970).

A second attribute of the innovation which has been found to play a significant role in the adoption process was the degree to which the innovation was seen as consistent with values and past experiences of the consumer (potential user) (Hyer, 1972; Stahl, 1972). Included with the accepted value of the innovation was that of conformity to norms (Gerard & Conolley, 1972). If teachers felt that their reference group valued the practice, they were more prone to accept the change or innovation. (Adamsky, 1972; Bice, 1970).

Credibility, as an attribute of the innovation, has also been linked to adoption of the innovation (Kester & Howard, 1975). Inservice training as a method to increase the credibility of the practice has been linked to adoption of curricula innovations. Users who lacked sufficient knowledge and expertise tended to resist using the new practice (Fullan & Pomfret, 1977). Other studies of inservice training to enhance innovation adoption, however, have resulted in conflicting conclusions (Ditzenberger, 1976; Harrell, 1981; Reynolds, 1970).

The need for additional resources (equipment and supplies) required to adopt and implement an innovation has been found in many studies to play a significant role in teachers' perceptions of barriers to innovation adoption (Cawelti, 1967; Harrell, 1981; Kester & Howard, 1975; Reynolds, 1970; Williams, 1971). Time, as a resource, along with clerical assistance was found to be a major factor which limited implementation of a distributive education learning system (Ditzenberger, 1976).

Other research has indicated that the extent to which the innovation required organizational changes in terms of time, personnel, and money was a factor in accepting the innovation (Kester & Howard, 1975; Rogers & Shoemaker, 1971; Reynolds, 1970). Dodge, Bogden, and Brogden (1974) found

that if the innovation was considered disruptive on routine and control in the classroom teachers tended to view the innovation negatively. Trialability of the innovation has also been found to indicated how teachers perceive barriers to implementing curriculum innovatio (Ditzenberger, 1976). Administrative support (Kievit, 1971; Watson, 1981), the numbers of students enrolled in a program (Williams, 1971), and the vocational region of Florida (Watson, 1981) were still other situational factors which have been found to exert an influence on teachers' acceptance of innovation and their perceptions of barriers to implementing an innovation.

Many studies have also been undertaken to determine characteristics of teachers which influence their acceptance or rejection of change. Among those characteristics were age (Hawkins, 1968; Russell, 1971; Watson, 1981; Yegge, 1971; Zimmerman, 1971) and years of teaching experience (Edwards, 1973; Hawkins, 1968; Zimmerman, 1971).

Although researchers have stated that teachers' attitudes toward change were multifaceted and extremely difficult to measure due to the interaction of so many factors, the development and utilization of the Change Orientation Scale (Russell, 1971) indicated that the change orientation of teachers could be measured. Two other measures of teacher receptivity to change, the Innovativeness-Flexibility Scale (Harrington, 1976) and the Stages of Concern Questionnaire (Hall, 1976; Sandery, 1981), also supported the concept that teacher receptivity to change was measurable.

The purpose of this study was (1) to determine the attitudes of Florida business teachers toward perceived barriers to implementing the Florida competency-based business curriculum materials and (2) to identify the characteristics of business teachers who would be most likely to receive

and adopt curriculum innovations. Specifically, the study was designed to answer five questions:

1. Are there differences in the attitudes of Florida business teachers in secondary schools, vocational-technical centers, and community colleges toward barriers to implementing a competency-based business curriculum?

2. Can certain demographic factors (age, teaching experience, work experience, number of students, amount of inservice training, type of institution, or geographic location) be used to predict the attitudes of business teachers toward barriers to implementation of the competency-based business curriculum?

3. Do Florida business teachers in secondary schools, vocational-technical centers, and community colleges possess different levels of change orientation?

4. Can certain demographic factors (age, teaching experience, work experience, number of students, amount of inservice training, type of institution, or geographic location) be used to predict the change orientation of business teachers?

5. Is there a relationship between the change orientation of business teachers and their perceptions of barriers to implementing the competency-based business curriculum?

The curriculum innovation under consideration in this study (Competencies for Business Education) was the result of the commitment of the Florida Division of Vocational Education, Florida Department of Education, to the goal of competency-based vocational education programs and curricula for all vocational programs (Mills, 1975).

In 1976 a project was funded in Florida to develop competency-based business education curriculum guides for five broad program areas--accounting, business administration, clerical, data processing, and secretarial. It was determined that the materials would be developed in four stages with the first being the development of common core materials applicable across the five program areas. The additional levels of material would build on these common core items in the individual program areas. The final stage

of the materials was developed for specialized programs in the area vocational-technical centers and community colleges (Head, 1980).

As materials were developed, validated, and printed, it became the responsibility of the five regional program specialists for business education to distribute them to teachers and provide inservice activities to acquaint those teachers with the materials and how to implement them in their classrooms. During those inservice activities, it became evident that many teachers saw problems with implementing the competency-based business curriculum and programs and with accepting the materials since they were task oriented; not textbook oriented. Through staff discussions, instructors' comments, and other involvement in the dissemination of the materials, it was determined that identification of barriers to implementing the competency-based curriculum would be of help in assisting teachers with implementation activities. It would also be helpful to determine if there were certain groups of teachers who were more oriented to accept and implement change (Minutes, Note 1).

Methods

Subjects

The population for this study included full-time business teachers at public secondary schools, vocational-technical centers administered by school districts, and community colleges in Florida where administrative approval had been granted for their inclusion in the sample. The total number of teachers in each group, as indicated by the Florida Educators' Information Service in 1981-1982, was 1315 secondary business teachers, 141 vocational-technical center business teachers, and 324 community college business teachers. Proportional random sampling (Tuckman, 1972) was used

to select the sample for the investigation. That sample included 151 secondary business teachers, 58 vocational-technical center business teachers, and 116 community college business teachers. Names of teachers for each subgroup were randomly selected by the Florida Educators' Information Service staff from the available listings of the 57 school districts and 24 community colleges which had agreed to allow their district/college to participate in the study.

Instruments

The survey instrument used in this study was composed of a demographic data section, a section of attitude statements representative of potential barriers to implementing the Florida Competencies for Business Education, the Russell Change Orientation Scale (Russell, 1971), the Innovativeness-Flexibility Scale (Harrington, 1976), and a section to gather information relative to teacher perceptions of competency-based vocational education.

Demographic Data. Comparisons for this study were made between secondary, vocational-technical center, and community college business teachers. Other independent variables selected for use in this section included: inservice training received, age of the teacher, years of teaching experience, number of students enrolled in the business program, years of related work experience, and vocational geographic region in Florida.

Perceived Barriers Attitude Scale. In the process of inservice activities by the investigator, many of the same concerns and questions listed by distributive education teachers (Ditzenberger, 1976) which might inhibit adoption and use of the distributive education learning system had been identified. Items selected for use in Part II of the questionnaire included those areas identified by the Florida regional program specialists

for business education (Minutes, Note 1), those identified through the literature, and those identified by the investigator during dissemination of the curriculum materials to teachers.

Forty-seven attitudinal statements representing materials and resources, administrative support, knowledge of content and use, teacher and peer evaluation of the materials based on attributes and values, characteristics of students, and organizational arrangements in the school setting were written. A four-point, forced response scale of 4, strongly agree, to 1, strongly disagree, was used for scoring purposes. Negative items were reversed in the scoring process.

Change Orientation Scale. The third section of the questionnaire consisted of the 21-item Change Orientation Scale designed by Russell (1971) to measure change orientation of teachers. This instrument contained six subscales which had been determined to be the most powerful discriminators between groups of teachers and their orientation toward change. In this study, a four-point, forced response scale of 4, strongly agree, to 1, strongly disagree, was used in scoring responses.

Innovativeness-Flexibility Scale. Section IV of the questionnaire was composed of the Innovativeness-Flexibility Scale used by Harrington (1976). This measure, using a four-point, forced response scale, was composed of 20 items from three published psychological test instruments. Those 20 items made up three subgroups for which analyses were also conducted.

Competency-based Vocational Education Questionnaire. Part V of the survey instrument was composed of three questions relative to the teacher's definition of competency-based vocational education. Those questions dealt with elements of the definition of competency-based vocational education and

information relative to the adoption or rejection of competency-based vocational education.

Validation of the Instrument

The survey instrument was submitted to a panel of 10 judges who were familiar with the Competencies for Business Education for the purpose of establishing content validity. This panel was asked to review the sections of the survey instrument and make recommendations concerning clarity of instructions and items.

Panel members were also requested to rate the statements in the Perceived Barriers section as potential barriers which might prevent the acceptance and implementation of the competency-based curriculum materials. A form using a rating scale of 5, very appropriate as a barrier, to 1, not appropriate as a barrier, was provided. An average rating of 4 was used to determine whether the item should be included in the field test instrument. In addition, the panel was asked to group the 47 items into six categories: attributes of the innovation, additional resources, value of the innovation, inservice training, the consumer (user), and situational work factors. To be included in the survey instrument required classification of the item in a particular category by 70 per cent of the panel members. Changes recommended by the panel, including elimination of 17 items, were incorporated in the Perceived Barriers section.

Concurrent validity of the Change Orientation Scale had been established through corresponding scores on the Rokeach Dogmatism Scale, Dye Local-Cosmopolitan Scale, and the McClosky Conservatism Scale (Russell, 1971). Validity of the Innovativeness Flexibility Scale had been established through

its use in a previous study and through the use of the individual psychological instruments which composed the scale (Harrington, 1976).

Field Test

The survey instrument, when revised to reflect changes and panel of judges' suggestions, was field tested by a group of business teachers. Multiple copies of the instrument were mailed to four instructors of graduate level business education programs and one county supervisor who had expressed a willingness for their students (business teachers pursuing advanced training) or business teachers (those using the materials in the classroom) to participate in the field test. Fifty-three survey forms were returned, five of which were eliminated because they were incomplete, and used in the field test analysis.

A four point, forced response scale of 4, strongly agree, to 1, strongly disagree, was used for scoring each of the three attitude scales used in the questionnaire. Negative items in each scale were reversed for scoring purposes. Reliability for the total scores on each scale as well as individual clusters of items in each was computed using coefficient alpha. Reliability for the Perceived Barriers Attitude Scale was .92. Reliability for the six clusters of items in that scale ranged from .47 to .90. The Change Orientation Scale had an estimated reliability of .86. Reliability estimates for the six groups of items in the scale ranged from .30 to .87. The Innovativeness-Flexibility Scale portion of the questionnaire had an estimated reliability of .83 using coefficient alpha. The three clusters of items in that scale had reliability estimates of .46 to .78.

Item/total correlations were also conducted for each item in the Perceived Barriers Attitude Scale to determine whether the item contributed

to the overall reliability of the cluster. Changes indicated by this procedure were incorporated in the final survey form.

Survey Procedures

The survey was mailed with a cover letter to the proportional random sample of 325 business teachers which had been selected. Of the 325 questionnaires mailed, 259 (80%) were returned. Two hundred twenty-four (69% of the 325 questionnaires mailed) contained usable data. Of those, 117 came from secondary business teachers; 47 from vocational-technical center business teachers; and 60 from community college business teachers.

Findings

Analyses were then conducted to obtain information for each of the research questions. A statistical significance of $p < .01$ was used in the analysis of data for each question to determine whether or not the findings were of sufficient strength to be considered significant.

One-way Analysis of Varianace was used to answer question 1:

> Are there differences in the attitudes of Florida business teachers in secondary, vocational-technical centers, and community colleges toward barriers to implementing the competency-based business education curriculum?

A statistically significant difference ($p < .001$) was found among the three teacher groups on total scores of the Perceived Barriers Attitude Scale. The Duncan post hoc test indicated that vocational-technical center business teachers saw fewer barriers to implementing the competency-based business curriculum while secondary business teachers saw the most barriers. No significant difference was found between vocational-technical center and community college business teachers or between secondary and community college business teachers.

Table 1

ANOVA Summary Table for Teacher Perceptions of Barriers

Source	Sum of Squares	Degrees of Freedom	Mean Square	F	F Significance
Type of Institution	3.66	2	1.83	11.26	.001
Explained	3.66	2	1.83	11.26	.001
Residual	35.97	221	.16		
Total	39.64	223	.18		

Separate ANOVA's were also conducted for each of the six clusters of items contained in the Perceived Barriers Attitude Scale. Significant differences at the .01 level were found among teacher groups for all clusters except cluster 1, perceived attributes.

The post hoc test confirmed the difference between group means for cluster 2, additional resources, and indicated a significant difference between vocational-technical center and secondary and community college business teachers. The same finding was observed for cluster 3, value of the innovation. Statistically significant differences were also found for cluster 4, inservice, and cluster 5, the consumer, between vocational-technical center and secondary business teachers. Analysis of cluster 6, situational work factors, indicated a statistically significant difference between secondary and vocational-technical center and community college business teachers.

Table 2

ANOVA Summary Table for Perceived Barriers Attitude Scale Clusters

Source	Cluster	Sum of Squares	Degrees of Freedom	Mean Square	F	F Significance
Type of Instituation	1	1.06	2	.53	1.26	.286
Explained		1.06	2	.53	1.26	.286
Residual		92.12	220	.42		
Total		93.18	222	.42		
Type of Institution	2	3.97	2	1.99	6.44	.002
Explained		3.97	2	1.99	6.44	.002
Residual		68.16	221	.31		
Total		72.13	223	.32		
Type of Institution	3	6.51	2	3.25	13.03	.001
Explained		6.51	2	3.25	13.03	.001
Residual		55.18	221	.25		
Total		61.69	223	.28		
Type of Institution	4	3.09	2	1.55	4.71	.010
Explained		3.09	2	1.55	4.71	.010
Residual		72.22	220	.33		
Total		75.31	222	.34		
Type of Institution	5	2.70	2	1.35	4.56	.010
Explained		2.70	2	1.35	4.56	.010
Residual		65.36	221	.30		
Total		68.06	223	.31		
Type of Institution	6	6.42	2	3.21	12.36	.001
Explained		6.42	2	3.21	12.36	.001
Residual		57.39	221	.26		
Total		63.81	223	.28		

Mean scores for vocational-technical center business teachers tended to be higher which indicated that they saw fewer barriers to implementing the competency-based business education curriculum than either secondary or community college business teachers. Mean scores for all three teacher groups were lower, more negative, on items contained in cluster 6, situational work factors, although secondary business teachers saw these items as barriers to a greater degree than either vocational-technical center or community college business teachers. Those items in cluster 6 which listed time and clerical assistance were seen by all groups as the most important barriers to implementing the competency-based business education curriculum. Secondary business teachers consistently scored lower, more negatively, and saw more barriers on all clusters whereas community college business teachers' responses were mixed.

Data for question 2, "Can certain demographic variables (age, teaching experience, work experience, number of students, amount of inservice, type of institution, or geographic location) be used to predict the attitudes of business teachers toward barriers to implementing competency-based business education curriculum?" was analyzed using stepwise multiple regression. Analyses were conducted for total scores on the Perceived Barriers Attitude Scale and each of the six clusters contained in that scale.

The type of institution (vocational-technical center or secondary school) appeared as a significant predictor of total scores and for four clusters of barriers--additional resources, value, inservice training, and situational work factors. The fact that a teacher was employed at a vocational-technical center and had received more inservice training were predictive of more positive attitudes for total scores on the Perceived Barriers Attitude Scale. No significant predictors were found for cluster

1, attributes. The type of institution, vocational-technical center, was found to be a predictor of positive scores on clusters 2 and 3, resources and value. Teaching in a secondary school was predictive of more negative scores on cluster 4, inservice training. More inservice training was predictive of higher, more positive scores, on that cluster. A greater amount of inservice training was also predictive of more positive scores for cluster 4, the consumer. Teachers with more work experience were also more positive on the items contained in cluster 5. Teaching in a secondary school was predictive of lower, more negative, scores on cluster 6, situational work factors.

One-way Analysis of Variance was used to answer question three which dealt with whether or not the three teacher groups had differing levels of change orientation. The two instruments used in the collection of these data were the Change Orientation Scale (Russell, 1971) and the Innovativeness-Flexibility Scale (Harrington, 1976). Analysis of total scores on the Change Orientation Scale indicated no statistical difference at the .01 level significance among the three teacher groups. Analysis of total scores on the Innovativeness-Flexibility Scale, however, did indicate a statistically significant difference between community college and secondary business teachers.

Separate analyses were then conducted for the six clusters of items in the Change Orientation Scale and the three clusters of items in the Innovativeness-Flexibility Scale. Significant differences were found among the three teacher groups for only three of the nine clusters of items contained in the two instruments. The groups of items for which there was a statistical difference were cluster 4 of the Change Orientation Scale

which represented individualized instruction/behavioral objectives and clusters 2 and 3 of the Innovativeness-Flexibility Scale which represented opposition to any change of judgment or change of plans and rigidity.

When the post hoc test was conducted for the clusters of items, it was found that there was a significant difference between secondary and vocational-technical center business teachers for cluster 4 of the Change Orientation Scale. Secondary business teachers tended to score lower, less change oriented, and vocational-technical center business teachers tended to score higher, more change oriented. For the Innovativeness-Flexibility Scale, the significant difference for the two clusters was found between secondary business teachers and community college business teachers. Community college business teachers tended to score higher, more change oriented, and secondary business teachers tended to score lower, less change oriented. Although the two instruments yielded somewhat different results, secondary business teachers were a distinct group from vocational-technical center or community college teachers in that they tended to score lower in their perceptions of change as measured by the two instruments. Mean scores of all teacher groups tended to be high, above the neutral point of 2.5, on both instruments with higher mean scores (2.8) on the Change Orientation Scale.

Question four dealt with whether or not any of the seven independent variables used in the study could be used to predict the change orientation of business teachers. Stepwise multiple regression analysis was conducted for total scores on both the Change Orientation Scale and the Innovativeness-Flexibility Scale as well as for each of the clusters of items contained in those two instruments.

The only variable used which was predictive of total scores on the Change Orientation Scale was that of the amount of inservice training which the teacher had received. More inservice training was predictive of more positive scores on the Change Orientation Scale. None of the variables met the criteria of significance for the first three clusters of items on the Change Orientation Scale. The fact that the teacher had taught at a secondary school was predictive of lower scores on cluster 4, individualized instruction/behavioral objectives, while the greater the amount of inservice training received was predictive of higher scores on that group of items. For cluster 5, adult education, the greater the amount of inservice was predictive of more positive scores. The number of students was predictive of the scores on cluster 6, team teaching/differentiated staffing. As the number of students rose, the scores on that cluster of items became more negative.

For the Innovativeness-Flexibility Scale only one variable, the type of school, met the criterial for significance. Teaching in the secondary school was predictive of lower scores on the total instrument as well as for the first two clusters of items. Those clusters represented the need for a stable, orderly environment and preservation tendencies and opposition to any change in judgment or change in plans.

The final question addressed in the study was whether or not there was a relationship between the change orientation of business teachers and their perceptions of barriers to implementing the competency-based business education curriculum materials. Pearson Product Moment correlations for both change scales and the Perceived Barriers Attitude Scale were conducted for total scores and the clusters of items in each of the instruments. The

results indicated that the Change Orientation Scale and the Perceived Barriers Attitude Scale had a positive correlation of .42 ($p < .001$). The Innovativeness-Flexibility Scale and the Perceived Barriers Attitude Scale had a positive correlation of .19 ($p < .004$).

The strongest correlations of clusters between the Change Orientation Scale and the Perceived Barriers Attitude Scale were clusters 4 and 6, individualized instruction/behavioral objectives and team teaching/differentiated staffing, of the Change Orientation Scale which correlated significantly ($p < .01$) with all clusters of the Perceived Barriers Attitude Scale. The remaining clusters of the Change Orientation Scale correlated with the total scores and at least one cluster of the Perceived Barriers Attitude Scale.

Table 3

Pearson Product Moment Correlations for the Perceived Barriers Attitude Scale and the Change Orientation Scale

(Total Scores and Clusters)

rceived Barriers Attitude Scale	Change Orientation Scale						
Clusters	1	2	3	4	5	6	Total
1	.13 p=.057	.11 p=.111	.14 p=.043	.29 p=.001	.12 p=.081	.30 p=.001	.32 p=.001
2	.05 p=.475	.06 p=.335	.10 p=.133	.23 p=.001	.14 p=.039	.19 p=.004	.23 p=.001
3	.11 p=.100	.11 p=.106	.12 p=.071	.34 p=.001	.10 p=.140	.32 p=.001	.34 p=.001
4	.04 p=.572	.12 p=.063	.24 p=.001	.26 p=.001	.07 p=.280	.25 p=.001	.31 p=.001
5	.19 p=.004	.19 p=.005	.22 p=.001	.46 p=.001	.16 p=.013	.31 p=.001	.43 p=.001
6	.18 p=.009	.11 p=.090	.13 p=.051	.31 p=.001	.18 p=.007	.20 p=.003	.30 p=.001
Total	.16 p=.018	.14 p=.030	.18 p=.006	.42 p=.001	.17 p=.010	.34 p=.001	.42 p=.001

Total scores on the Perceived Barriers Attitude Scale and the Innovativeness-Flexiblity Scale correlated significantly; however, only cluster 1 of the Innovativeness-Flexibility Scale correlated with any individual cluster of items in the Perceived Barriers Attitude Scale. That group of items represented the need for a stable, orderly environment and preservation tendencies and correlated with the consumer (r=.22) and situational work factors (r=.26) clusters in the Perceived Barriers Attitude Scale.

Table 4

Pearson Product Moment Correlations for the Perceived Barriers Attitude Scale and the Innovativeness-Flexibility Scale (Total Scores and Clusters)

Perceived Barriers Attitude Scale	Innovativeness-Flexibility Scale			
Clusters	1	2	3	Total
1	.11 p=.102	-.08 p=.228	.13 p=.051	.04 p=.588
2	.13 p=.062	.07 p=.294	.11 p=.107	.13 p=.059
3	.16 p=.018	.07 p=.292	-.02 p=.744	.13 p=.051
4	.11 p=.086	-.05 p=.478	-.01 p=.885	.04 p=.516
5	.22 p=.001	.03 p=.609	.11 p=.095	.18 p=.007
6	.26 p=.001	.10 p=.135	.15 p=.023	.25 p=.001
Total	.22 p=.001	.07 p=.324	.11 p=.117	.19 p=.004

A Canonical Analysis was also conducted for the instruments involved in this question. That analysis showed one significant Canonical correlation of .59 between the barriers clusters and the Change Orientation Scale clusters. Those significant Canonical variates were value of the innovation and the consumer and individualized instruction/behavioral objectives and team teaching/differentiated staffing. No significant Canonical correlations were found between the Innovativeness-Flexibility Scale and the Perceived Barriers Attitude Scale.

Conclusions

The findings of this study led to the following conclusions:

1. For the Florida business education teachers included in the study, there was a significant difference in the perceptions of barriers to implementation of the competency-based business curriculum materials between the three groups. Vocational-technical center business teachers saw fewer barriers to implementing the competency-based business education curriculum materials; whereas secondary business teachers saw the most barriers. Community college business teachers' perceptions of barriers were mixed depending upon the types of barriers represented although they did tend to see more barriers to competency-based business curriculum implementation than did vocational-technical center teachers.

2. Those barriers to competency-based business curriculum implementation most identifiable were lack of time and lack of clerical assistance which were categorized in this study as situational work factors. This group of items which included time, clerical assistance, facilities, and scheduling were viewed as the most limiting factors for implementing

competency-based business curriculum materials by all three groups of teachers. This finding was directly related to that of Ditzenberger (1976) in his study of barriers to using the Inter-State Distributive Education Consortium learning system. Vocational-technical center business teachers, however, viewed these factors as less prohibitive in the curriculum implementation process.

3. The demographic variables most predictive of teachers' perceptions of barriers to competency-based business education curriculum implementation were the type of school in which the teacher taught, the amount of inservice which the teacher had received, and the amount of related work experience the teacher had done. The type of school (vocational-technical center) in which the teacher worked and the more inservice training which the teacher had received were predictive of those teachers' seeing fewer barriers. An amount of inservice above and beyond that considered normal had been considered by Fullan and Pomfret (1977) as being responsible for increased acceptance and use of curriculum innovations and, thus, fewer barriers in the implementation process.

4. The Change Orientation Scale and the Innovativeness-Flexibility Scale which were used in the study indicated little difference among teachers in the secondary school, vocational-technical center, and community college toward change. Although the two change instruments indicated limited differences in the perception of change by the three teacher groups, secondary business teachers were identified as less prone toward change than either the vocational-technical center or community college business teachers.

5. Of the independent variables used in the study, the amount of inservice training the teacher had received and the type of institution

at which the teacher worked were most predictive of teachers' change orientation as measured by the instruments used in this study.

6. There appeared to be a moderate relationship between teachers' attitudes toward barriers and change as measured by the Change Orientation Scale (.42). The relationship between barriers and change as measured by the Innovativeness-Flexibility Scale was extremely small (.19). Analyses of the clusters of items in the three instruments indicated much stronger correlations of clusters of items between the Change Orientation Scale and the Perceived Barriers Attitude Scale. The Change Orientation Scale was, therefore, more useful in determining teacher responses to barriers to implementing the competency-based business curriculum materials.

REFERENCE NOTES

1. Minutes. Business Education Staff Meetings, Division of Vocational Education, Florida Department of Education, 1979, 1980, and 1981.

REFERENCES

Adamsky, R. A. The effect of situational variables on the adoption behavior of vocational trade and industrial teachers with varying orientation to change. Unpublished Ed.D. dissertation, Rutgers, the State University, 1972.

Bice, G. R. The relationship of group structured properties and communication patterns to opinion leadership among teachers. 1970. (ERIC Document Reproduction Service No. ED 042 902)

Cawelti, R. G. Innovative practices in high schools: Who does what - why - and how. Nations Schools, 1967, 79, 55-60.

Ditzenberger, R. Perceived barriers to implementing a distributive education competency-based learning system. Unpublished Ph.D. dissertation, The Iowa State University, 1976.

Dodge, M., Bogdan, R., & Brogden, N. How teachers perceive media. Educational Technology, 1974, 14(1), 21-24.

Edwards, J. K. A study of the factors influencing the internalization of innovations by teachers within a school system. Unpublished Ph.D. dissertation, Miami (Ohio) University, 1973.

Fullan, M., & Pomfret, A. Research on curriculum and instruction implementation. Review of Educational Research, 1977, 47, 335-397.

Gerard, H. B, & Conolley, E. S. Conformity. In C. G. McClintock (Ed.), Experimental social psychology. New York: Holt, Rinehart & Winston, 1972, 237-263.

Hall, G. E. The study of individual teacher and professor concerns about innovations. Journal of Teacher Education, 1976, 27(1), 22-23.

Harrell, L. W. The development of a revised management plan for the implementation of the Florida automotive mechanics curriculum. Unpublished Ed.D. dissertation, NOVA University, 1981.

Harrington, C. T. Identifying the potentially innovative vocational-technical teacher: An examination of selected personal and interpersonal variables of teacher receptivity to educational innovation. Unpublished Ph.D. dissertation, The Florida State University, 1976.

Havelock, R. G. A guide to innovation in education. Ann Arbor, Michigan: Institute for Social Research, Center for Research on Utilization of Scientific Knowledge, The University of Michigan, 1970.

Havelock. R. G. Planning for innovation through dissemination and utilization of knowledge. Seventh Edition; Ann Arbor, Michigan: Institute for Social Research, Center for Research on Utilization of Scientific Knowledge, The University of Michigan, 1979.

Hawkins, W. D. Some factors which contribute to successful innovation. Unpublished Ed.D. disseration, University of Southern California. Dissertation Abstracts International, 1968, 28(11), 4410-A

Head C. E. Business education. Florida Vocational Journal, 1980, 6(1), 13-16.

Hyer, A. L. Effect on teacher role of the introduction of educational technology and media into schools. Washington, D. C.: National Education Association, 1972. (ERIC Document Reproduction Service No. ED 058 751)

Kester, R. J., & Howard, J., Jr. Evaluating the process of educational change: A model and its applications. Paper presented to the American Educational Research Association, Washington, D. C., March, 1975.

Kester, R. J., & Hull, W. L. The relationship of professional-organizational styles with selected variables associated with the process of educational change. Paper presented to the American Educational Research Association, Chicago, Illinois, April, 1974.

Kievit, M. B. An investigation of the effectiveness of a design to initiate curriculum change in home economics. Pilot study: Phase II occupational research development monograph number 10, The Research Coordinating Unit for Vocational Education. Trenton, New Jersey: Bureau of Occupational Development, Division of Vocational Education, New Jersey State Department of Education, 1971.

Lippitt, R., Watson, J., & Westley, B. The dynamics of planned change: A comparative study of principles and techniques. New York: Harcourt, Brace, and World, 1958.

Mills, J. D. Competency-based vocational education: Miracle or monster. Florida Vocational Journal, 1975, 1(2), 5-10.

Reynolds, J. J. A study of factors affecting the adoption of educational innovations in selected secondary schools. Unpublished Ed.D. dissertation, Indiana University, 1970.

Rogers, E. M., & Shoemaker, F. F. Communication of innovation. New York: The Free Press, 1971.

Russell, E. B. Development of an instrument to measure the change orientation of vocational teachers. Unpublished Ph.D. dissertation, The Ohio State University, 1971.

Sandery, A. A. An analysis of the concerns of vocational-technical teachers about competency-based vocational education. Unpublished Pn.D. dissertation, The Florida State University, 1981.

Stahl, R. L. Teacher participation and attitudes, innovation characteristics and the adoption of behavioral objectives. Unpublished Ph.D. dissertation, The Florida State University, 1972.

Tuckman, B. W. Conducting educational research. New York: Harcourt Brace Jovanovich, Inc., 1972.

Watson, P. K. Perceptions of a proposed plan for a competency-based vocational education system: Analysis of survey results. Unpublished Ph.D. dissertation, The Florida State University, 1981.

Williams, D. L. Variables influencing teacher adoption of cooperative agriculture occupations curricula. Ed.D. dissertation, Oklahoma State University. Disseration Abstracts International, 1971, 31(8), 4026-A

Yegge, J. F. The adoption of an innovation in physics teaching: A study of factors related to the adoption of the project physics course in American high schools. Ed.D. disseration, Harvard University. Disseration Abstracts International, 1971, 32(7), 3649-A.

Zimmerman, R. E. Perceptions and personality characteristics associated with innovation. Ph.D. dissertation, The University of North Dakota. Disseration Abstracts International, 1971, 31(12), 6461-A.

PERCEIVED BARRIERS TO IMPLEMENTING FLORIDA'S COMPETENCY-BASED BUSINESS EDUCATION CURRICULUM

Linda Ann Cochran Slaugh

Survey Instrument Information

PERCEIVED BARRIERS ATTITUDE SCALE

(30 items)

Cluster	Description
1	Attributes of the Competencies for Business Education--those items concerning the relevance or value of the materials.
2	Additional Resources--items concerning resources required to implement the competency-based curriculum.
3	Value of the Innovation--items which reflect beliefs of teachers or those other professionals with whom they come in contact.
4	Inservice Training--items which reflect areas where additional inservice is required.
5	The Consumer--items which reflect how teachers feel about their ability to use the materials and how they feel about their students.
6	Situational Work Factors--items which reflect organizational or other factors in the work environment.

CHANGE ORIENTATION SCALE

(Russell, 1971)

(21 items)

Cluster	Description
1	Reducing the number of unemployed people in the labor market.
2	Special needs of the disadvantaged.
3	Beginning preparation for employment at an earlier age.
4	Individualized instruction and behavioral objectives.
5	Adult education.
6	Team teaching and differentiated staffing.

INNOVATIVENESS-FLEXIBILITY SCALE

(Harrington, 1976)

(20 items)

Cluster	Description
1	Refisch Scale to measure an individual's need for a stable, orderly environment and preservation tendencies of individuals.
2	RAPH Scale to measure opposition to any change of judgment or change of plans.
3	Wesley's Rigidity Scale to measure rigidity.

Survey Instrument

COMPETENCY-BASED BUSINESS EDUCATION

Part 1

Directions:

The purpose of this part of the survey is to obtain some general information regarding your current position. Please respond by checking the category which best applies to you.

I have received the following parts of the Florida COMPETENCIES FOR BUSINESS EDUCATION (check all which apply):

_____ Level I
_____ Levels II and III, Part 1
_____ Levels II and III, Part 2

The amount of inservice training I have received in using the competency-based business education curriculum materials is:

_____ None
_____ 1 to 7 hours
_____ 8 to 15 hours
_____ 16 to 30 hours
_____ More than 30 hours

The type of school at which I teach is:

_____ High School
_____ Area Vocational-Technical Center
_____ Community College
_____ Other (please list)_____

The number of students enrolled in my business education program is (list only the number of students for whom you are directly responsible):

_____ Less than 25 students
_____ 25 to 50 students
_____ 51 to 100 students
_____ More than 100 students

My present age is:

_____ Under 25 years
_____ 25 to 35 years
_____ 36 to 45 years
_____ Over 45 years

My teaching experience in business education is:

_____ Less than 2 years
_____ 2 to 5 years
_____ 6 to 10 years
_____ 11 to 15 years
_____ More than 15 years

My related work experience in business is:

_____ Less than 2 years
_____ 2 to 5 years
_____ 6 to 10 years
_____ More then 10 years

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Part 2

Directions:

The purpose of this part of the survey to to identify your opinions about using the Florida COMPETENCIES FOR BUSINESS EDUCATION curriculum materials in your business education program(s) and to identify personal and professional opinions about a variety of ideas and situations. There are no right or wrong answers, so do not hesitate to respond to each statement frankly. Many different and opposing points of view are covered and you may find yourself strongly agreeing with some of the statements and disagreeing just as strongly with others. Whether you agree or disagree, please respond to every statement.

You are asked to respond to each statement by circling the appropriate letter(s) to the right of the statement, using the following code. Please circle only one:

Strongly Agree	SA
Agree	A
Disagree	D
Strongly Disagree	SD

COMPETENCIES FOR BUSINESS EDUCATION:

1. The school and district administrations have been philosophically supportive of the Competencies for Business Education. SA A D SD

2. Departmental approval has aided in implementing and using the Competencies for Business Education. SA A D SD

3. Administrative financial support for the following equipment has aided in implementing and using the Competencies for Business Education:
   a. Adequate File cabinets to house materials SA A D SD
   b. Adequate equipment (typewriters, calculators, tape recorders, etc.) SA A D SD
   c. Audio-visual equipment for instruction SA A D SD

4. Administrative financial support for the following supplies has aided in implementing and using the Competencies for Business Education:
   a. File folders to house student records, tests, objectives, learning activities, etc. SA A D SD
   b. Masters/stencils, etc., to provide for multiple copies of materials SA A D SD
   c. Copy paper to run multiple copies of tests, learning activities, student competency records, etc. SA A D SD

5. Administrative financial support for books, records, filmstrips, etc., has aided in implementing and using the Competencies for Business Education. SA A D SD

6. I am confident in my ability to effectively use the Competencies for Business Education in my business education program(s). SA A D SD

7. I believe that competencies should be the curriculum base for each business education program. SA A D SD

8. I do not feel confident in individualizing instruction in my business education program(s) using the Competencies for Business Education. SA A D SD

9. Time has not been adequate to set up files to house the Competencies for Business Education curriculum materials and student competency records. SA A D SD

10. Adequate learning activities are available to use with the Competencies for Business Education. SA A D SD

11. The sequencing of objectives and competencies in the Competencies for Business Education materials are easy to use. SA A D SD

12. I understand how to use each section of the Competencies for Business Education materials. SA A D SD

13. Lack of confidence in the Competencies for Business Education format hinders my using the materials. SA A D SD

14. Lack of time to prepare individualized instruction and/or small group instruction prevents my implementing the Competencies for Business Education materials. SA A D SD

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15. I have received enough inservice training to adequately implement the Competencies for Business Education materials. SA A D SD

16. The facilities in my business education department are not adequate to implement the Competencies for Business Education materials. SA A D SD

17. I am confident that I can explain the Competencies for Business Education materials to my school administrators to obtain their philosophical support. SA A D SD

18. I am confident that I can explain the Competencies for Business Education materials to my school administrators to obtain the required financial support. SA A D SD

19. Clerical duties (copying, preparing learning activities, filing, record keeping, etc.) are too time consuming to permit using the Competencies for Business Education. SA A D SD

20. Business education teachers generally view the practice of using competency testing positively. SA A D SD

21. My ability to develop evaluation procedures to assign grades to students using the Competencies for Business Education materials is adequate. SA A D SD

22. The scheduling of business education offerings in my department limits the implementation of the Competencies for Business Education materials. SA A D SD

23. Administrators at my school view the practice of using competency-based business education curriculum materials positively. SA A D SD

24. The need for an adequate record keeping procedure designed to record student competency development prevents my using the Competencies for Business Education. SA A D SD

25. The Competencies for Business Education materials are easy to use. SA A D SD

26. Business education leaders in the State view the use of the Competencies for Business Education favorably. SA A D SD

PROFESSIONAL OPINIONS:

27. Teachers should conduct classes without assistance and discourage others from helping. SA A D SD

28. I find that individualized instruction using behavioral objectives is valuable in helping the student succeed. SA A D SD

29. I do not work well enough with others to make differentiated team teaching work. SA A D SD

30. I think the use of behavioral objectives with individualized learning experiences should help students develop to their potential. SA A D SD

31. Early occupational education may stimulate a better attitude toward school work in later years. SA A D SD

32. Vocational education can do little to alleviate the problems of disadvantaged people. SA A D SD

33. Use of differentiated team teaching would allow a more varied content in lessons. SA A D SD

34. I think there is no harm in starting occupational preparation in young school children. SA A D SD

35. I accept the idea that individualized instruction using behavioral objectives allows students to experience success more often. SA A D SD

36. Schools cannot do much to develop positive attitudes toward work. SA A D SD

37. I am convinced that differentiated team teaching is a waste of time. SA A D SD

38. Vocational teachers can make a real contribution to occupational education at the elementary level. SA A D SD

39. I would greatly dislike being a member of a differentiated teaching team. SA A D SD

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40. I believe it is more important to work with an entire class than to spend a lot of time with individuals. SA A D SD

41. I believe that increased emphasis on adult vocational programs would eventually reduce inner-city unemployment. SA A D SD

42. Students can benefit little from occupational education in the elementary grades. SA A D SD

43. Teaching teams allow a teacher to spend more time developing creativity, responsibility, and habits of inquiry in students. SA A D SD

44. I uphold the differentiated team teaching concept as permitting natural exchange of ideas. SA A D SD

45. We now have more vocational programs than we need for the disadvantaged. SA A D SD

46. There is no need in the elementary curriculum for the addition of occupational education. SA A D SD

47. I say that differentiated team teaching is asking too much of established teachers. SA A D SD

PERSONAL OPINIONS:

48. I must admit that it makes me angry when other people interfere with my daily activity. SA A D SD

49. I find that a well-ordered mode of life with regular hours is congenial to my temperament. SA A D SD

50. It bothers me when something unexpected interrupts my daily routine. SA A D SD

51. I don't like to undertake any project unless I have a pretty good idea as to how it will turn out. SA A D SD

52. I find it hard to set aside a task that I have undertaken, even for a short time. SA A D SD

53. It is a good idea to have a strong point of view about things because that makes it easier to decide what is wrong or right. SA A D SD

54. People who seldom change their minds can usually be depended upon to have sound and reliable judgment on matters of importance. SA A D SD

55. When people make up their minds about something they should stick to their conclusion instead of repeatedly rehashing the question. SA A D SD

56. I rather like the idea of having friends drop in unexpectedly at odd hours. SA A D SD

57. I dislike doing anything just on the spur of the moment. SA A D SD

58. Few things are more upsetting than a sudden unexpected change of plans. SA A D SD

59. I never start anything I cannot finish. SA A D SD

60. Once people start going off their budgets, even by small amounts, they are on the road to financial difficulty. SA A D SD

61. The only way to make sure that things get done right is to set up a definite and fixed schedule and never depart from it. SA A D SD

62. There is usually one best way to solve most problems. SA A D SD

63. I dislike changing my plans in the middle of an undertaking. SA A D SD

64. I would like a position which requires frequent changes from one kind of task to another. SA A D SD

65. I do not enjoy having to adapt myself to new and unusual situations. SA A D SD

66. I dislike having to learn new ways of doing things. SA A D SD

67. I think it is usually wise to do things in a conventional way. SA A D SD

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Part 3

Directions:

Please answer the following questions about competency-based vocational education based on your personal feelings.

Check as many of the following as apply to your definition of competency-based vocational education:

_____ Is a new process of education

_____ Is an old process with a new name

_____ Has goals for student mastery

_____ Has goals for teacher delivery of instruction

_____ Has goals related to job requirements

_____ Has goals related to curriculum delivery

_____ Has goals related to job impact

_____ Has goals related to societal impact

_____ Is based on job task analysis

_____ Is based on learning task analysis

_____ Is based upon teacher agreement of criteria

_____ Is based upon scientific research

_____ Other (please List)

_____

_____

_____

What two (2) major conditions do you consider essential for you to implement competency-based vocational education in your classroom?

_____

_____

_____

_____

What two (2) major factors would prevent you from adopting and implementing competency-based vocational education in your classroom?

_____

_____

_____

_____

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